



Upper Torque-Guide Junction Box Issue

In certain situations, it may be possible for the Upper Torque-Guide Junction Box (UTG J-box) door to become detached from the J-box during operations and fall to the rig floor. If the door is not closed correctly following maintenance or becomes open during operation, it can be caught by the service loop or top drive.

Canrig recommends the following course of action to prevent such incidents from occurring.

Scope

This bulletin covers the following:

Part #	Description	Drawing	BOM
AY21048	Retention Kit - Grounding Stud Present	Pg. 5	see Table 1
AY21048-1	Retention Kit - Grounding Stud Missing	Pg. 6	see Table 2
AY21095	Retention Cable Grounding Strap	Pg. 7	see Table 3

Recommendation

For retention of these parts, Canrig recommends the following course of action:

1. Always follow safe operating procedures in accordance with the operations manual.
2. Verify that all J-box doors are adequately attached with their installed closure devices and that the installed devices are in satisfactory condition as to prevent the door from coming open during operations.
3. If a J-box door must be opened for maintenance or troubleshooting, close the door and secure the latches properly when finished.
4. Any time a J-box door has been opened for maintenance or repair, a post-work survey should be conducted to ensure that the work has been completed properly, that secondary retention devices are in place, and that the door has been closed and latched securely.
5. For installations that do not have retention devices, retention kit AY21048 or AY21048-1 should be ordered and installed.
6. All UTG J-box assemblies will be inspected for secondary retention devices and replaced or modified as needed during routine 1000 day maintenance operations.

Safety Alert



The installation of the safety wire will not prevent the door from being dislodged during operations. If the door is noticed to be open, immediately stop operations and ensure the door is securely fastened. The door may still be able to fall after the safety wire is installed if the door further catches on the top drive or service loop and the safety wire is over stressed.



Failure to follow the recommendations and/or guidance in Canrig Product Bulletins may result in death, bodily injury or property damage.

Actions

Inspect the J-box door to determine if the welded grounding stud is present.

- a. If the grounding stud *is* present, order and install retention kit AY21048 as soon as possible and install per **Instructions for AY21048 – When Grounding Stud is Present**.
- b. If the grounding stud is *not* present, order and install retention kit AY21048-1. During the next rig move perform installation as per **Instructions for AY21048-1 – Ground Stud Installation**.

Reference drawings, AY21048/ AY21048-1 and AY21095 to perform the following tasks:

Instructions for AY21048 – When Grounding Stud is Present

Refer to drawing AY21048 and BOM for these steps.

1. Remove any nuts, washers, wires, or other hardware from the grounding studs on the door and side panel.
2. Place one plain ¼" washer (item 01 - FW-0250-SS) on the side panel grounding stud.



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3. Place one external tooth ¼" lock washer (item 02 - LW-0250-ET-SS) on the side panel grounding stud.
4. Use a ¼" locknut (item 04 - LN-0250NC-GR8) and wrench to secure the washers to the bolt. Replace three-phase motor grounds if originally present.
5. Place one end of the braided grounding strap (item 03 - E15530) on the side panel grounding stud.
6. Place one end of retention cable (item 05 - AY21095) on the side panel grounding stud.
7. Use a ¼" locknut (item 04 - LN-0250NC-GR8) and wrench to secure the components on the side panel grounding stud.
8. Place one plain ¼" washer (item 01 - FW-0250-SS) on the door grounding stud.
9. Place one external tooth ¼" lock washer (item 02 - LW-0250-ET-SS) on the door grounding stud.
10. Use a ¼" locknut (item 04 - LN-0250NC-GR8) and wrench to secure the washers to the bolt.
11. Place other end of the braided grounding strap (item 03 - E15530) on the door grounding stud.
12. Place other end of retention cable (item 05 - AY21095) on the door grounding stud.
13. Use a ¼" locknut (item 04 - LN-0250NC-GR8) and wrench to secure the components on the door grounding stud.

Instructions for AY21048-1 – Ground Stud Installation

Refer to drawing AY21048-1 and BOM to install the ground studs.

1. Using drill motor with drill-bit (item 06 - M10348), drill a 5/16" hole in the lower third of the door, **on the hinge side**. Drilling with low speed and high pressure is recommended. Use a drop cloth to catch shavings to protect equipment from damage. Refer to Figure 1 and Figure 2 for illustrative sketches; they are for illustration purposes only and are not drawn to scale.
2. Place self-sealing washer (item 05 - E18207) onto ¼–20x1 bolt (item 07 - HH-0250NC-0100-GR8) and insert bolt into the drilled hole from the exterior surface of the door.
3. Place one self-sealing washer (item 05 - E18207) on the bolt inside the door.
4. Place one external tooth ¼" lock washer (item 04 - LW-0250-ET-SS) on the bolt inside the door.
5. Use a ¼" locknut (item 03 - LN-0250NC-GR8) and wrench to secure the components to the installed bolt. This becomes the grounding stud for the door.
6. Drill a second 5/16" hole in the side panel **on the hinge side** near the hole drilled in the door.
7. Place self-sealing washer (item 05 - E18207) onto ¼–20x1 bolt (item 07 - HH-0250NC-0100-GR8) and insert bolt into the drilled hole from the exterior surface of the side panel.
8. Place one self-sealing washer (item 05 - E18207) on the bolt inside the panel.
9. Place one external tooth ¼" lock washer (item 04 - LW-0250-ET-SS) on the bolt inside the panel.



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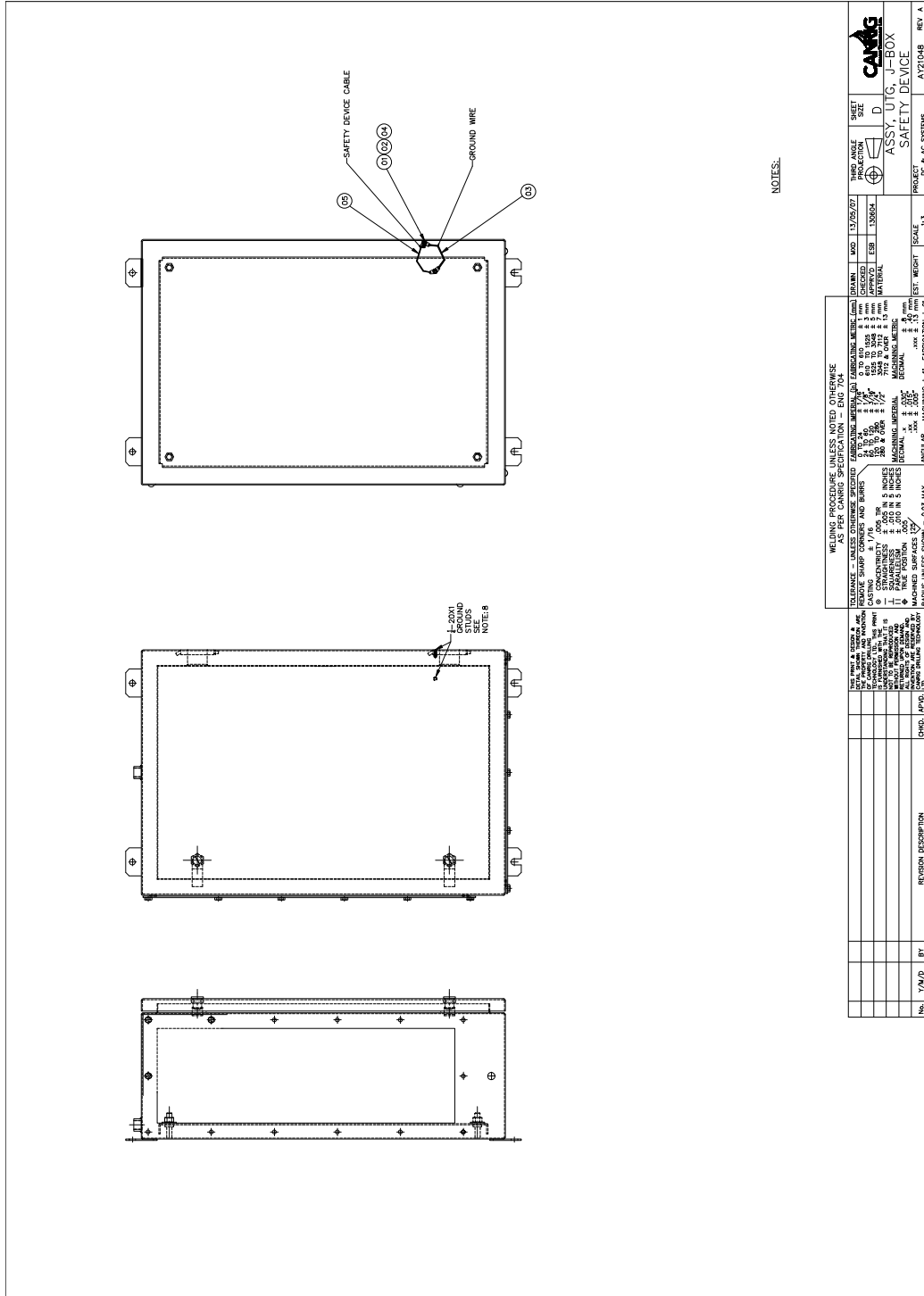
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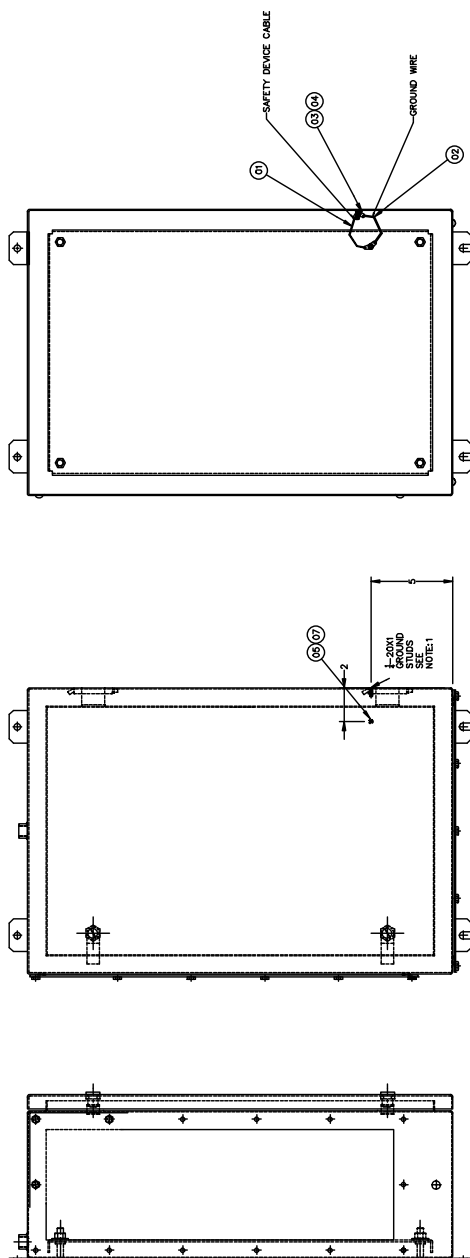
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10. Use a ¼" locknut (item 03 - LN-0250NC-GR8) and wrench to secure the components to the installed bolt. This bolt becomes the grounding stud for the side panel.
11. Place one end of the braided grounding strap (item 02 - E15530) on the side panel grounding stud.
12. Place one end of retention cable (item 01 - AY21095) on the side panel grounding stud.
13. Use a ¼" locknut (item 03 - LN-0250NC-GR8) and wrench to secure the components on the side panel grounding stud.
14. Place other end of the braided grounding strap (item 02 - E15530) on the door grounding stud.
15. Place other end of retention cable (item 01 - AY21095) on the door grounding stud.
16. Use a ¼" locknut (item 03 - LN-0250NC-GR8) and wrench to secure the components on the door grounding stud

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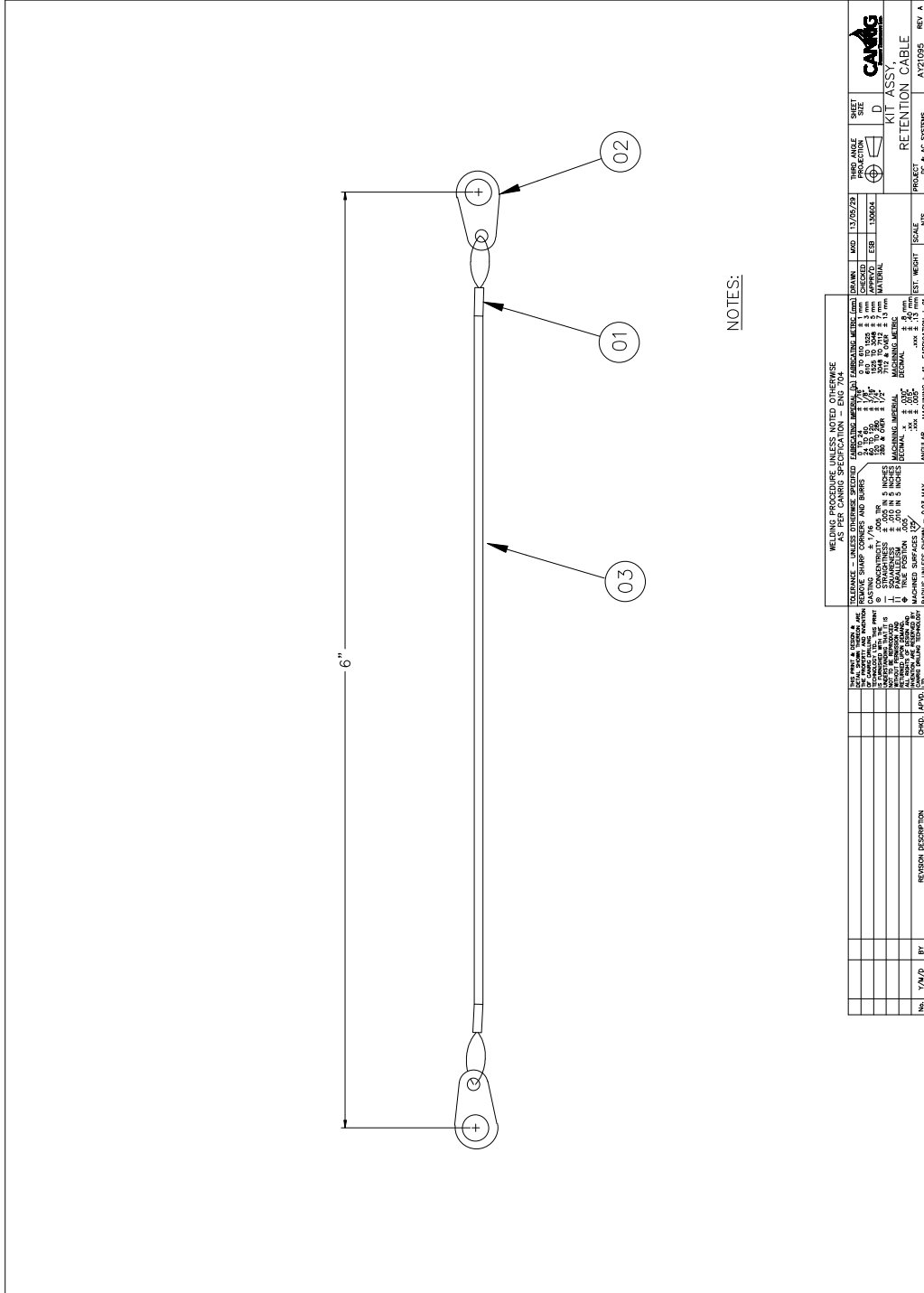
NOTES:

1. DRILL 1/4-20 X 1" BOLT INSIDE ENCLOSURE AND TO DOOR.

REV.	DATE	BY	DESCRIPTION

<p>WELDING PROCEDURE UNLESS NOTED OTHERWISE AS PER CANRIG SPECIFICATION - ENG 704</p> <p>ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:</p> <ul style="list-style-type: none"> 1. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. 2. ALL WELDS SHALL BE MADE BY WELDERS WHOSE QUALIFICATIONS HAVE BEEN VERIFIED BY AN APPROVED TESTING AGENCY. 3. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. 4. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. 5. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. 6. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. 7. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. 8. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. 9. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. 10. WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDED JOINTS SPECIFICATION - ENG 704. <p>RADIUS UNLESS SHOWN = 0.03 MAX.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">DESIGN</td> <td>13/06/07</td> </tr> <tr> <td>REVISED</td> <td>13/06/07</td> </tr> <tr> <td>APPROVED</td> <td>ESB</td> </tr> <tr> <td>MATERIAL</td> <td> </td> </tr> <tr> <td>SCALE</td> <td>1:1</td> </tr> <tr> <td>WEIGHT</td> <td> </td> </tr> <tr> <td>EST. WEIGHT</td> <td> </td> </tr> <tr> <td>SCALE</td> <td>1:1</td> </tr> </table> <p>PROJECT: DC & AC SYSTEMS</p> <p>SCALE: 1:1</p> <p>PRODUCT: DC & AC SYSTEMS</p> <p>PROJECT: DC & AC SYSTEMS</p>	DESIGN	13/06/07	REVISED	13/06/07	APPROVED	ESB	MATERIAL		SCALE	1:1	WEIGHT		EST. WEIGHT		SCALE	1:1
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<p>WELDING PROCEDURE UNLESS NOTED OTHERWISE FABRICATING MATERIALS TO BE USED AS SPECIFIED UNLESS OTHERWISE SPECIFIED</p>		<p>DATE: 12/05/09 CHECKED: [Signature] MATERIAL: [Material]</p>	<p>THIRD ANGLE PROJECTION</p>	<p>SHEET SIZE D</p>	<p>CANRIG KIT ASSY, RETENTION CABLE</p>
<p>TELEPHONE - UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED</p>	<p>CONCENTRICITY - UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED</p>	<p>FINISH - UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED</p>	<p>WELDING PROCEDURE UNLESS NOTED OTHERWISE UNLESS OTHERWISE SPECIFIED</p>	<p>DATE: 12/05/09 CHECKED: [Signature] MATERIAL: [Material]</p>	<p>THIRD ANGLE PROJECTION</p>
<p>THE PART & QUANTITY UNLESS OTHERWISE SPECIFIED</p>	<p>CONCENTRICITY - UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED</p>	<p>FINISH - UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED</p>	<p>WELDING PROCEDURE UNLESS NOTED OTHERWISE UNLESS OTHERWISE SPECIFIED</p>	<p>DATE: 12/05/09 CHECKED: [Signature] MATERIAL: [Material]</p>	<p>THIRD ANGLE PROJECTION</p>
<p>NO. Y/M/D BY</p>	<p>REGION DESCRIPTION</p>	<p>CHKD. APP'D. ETC.</p>	<p>EST. WEIGHT</p>	<p>SCALTS</p>	<p>PROJECT & AC SYSTEMS</p>
<p>AY21095</p>	<p>REV A</p>	<p>REV A</p>	<p>REV A</p>	<p>REV A</p>	<p>REV A</p>



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Table 1: AY21048 Kit, Assy, UTG, J-Box, Safety Device

Item	Qty	Units	Part ID	Description
01	2.0	EA	FW-0250-SS	Washer, F, 1/4, Plain, SS
02	2.0	EA	LW-0250-ET-SS	Lockwasher, 1/4, External Tooth, SS
03	1.0	EA	E15530	Ground Strap, 8", Braided
04	4.0	EA	LN-0250NC-GR8	Locknut, 1/4-20UNC, GR8, Stover
05	1.0	EA	AY21095	Kit, Assy, Retention, Cable

Table 2: AY21048-1 Kit, Assy, Upgrade, UTG, J-Box

Item	Qty	Units	Part ID	Description
01	1.0	EA	AY21095	Kit, Assy, Retention, Cable
02	1.0	EA	E15530	Ground Strap, 8", Braided
03	4.0	EA	LN-0250NC-GR8	Locknut, 1/4-20UNC, GR8, Stover
04	2.0	EA	LW-0250-ET-SS	Lockwasher, 1/4, External Tooth, SS
05	4.0	EA	E18207	Washer, Seeloc
06	1.0	EA	M10348	Drill Bit, 5/16
07	2.0	EA	HH-0250NC-0100-GR8	Capscrew, Hex HD, 1/4-20UNC x 1.00, GR8

Table 3: AY21095 Kit, Assy, Retention, Cable

Item	Qty	Units	Part ID	Description
01	2.0	EA	M19-3009-010	Ferrule, 1/8, Oval, Aluminum
02	2.0	EA	M10480	Washer, Flat, Retaining
03	1.0	IN	E18206	Wire, Rope 10", Teflon Coated, SS, 1/8"

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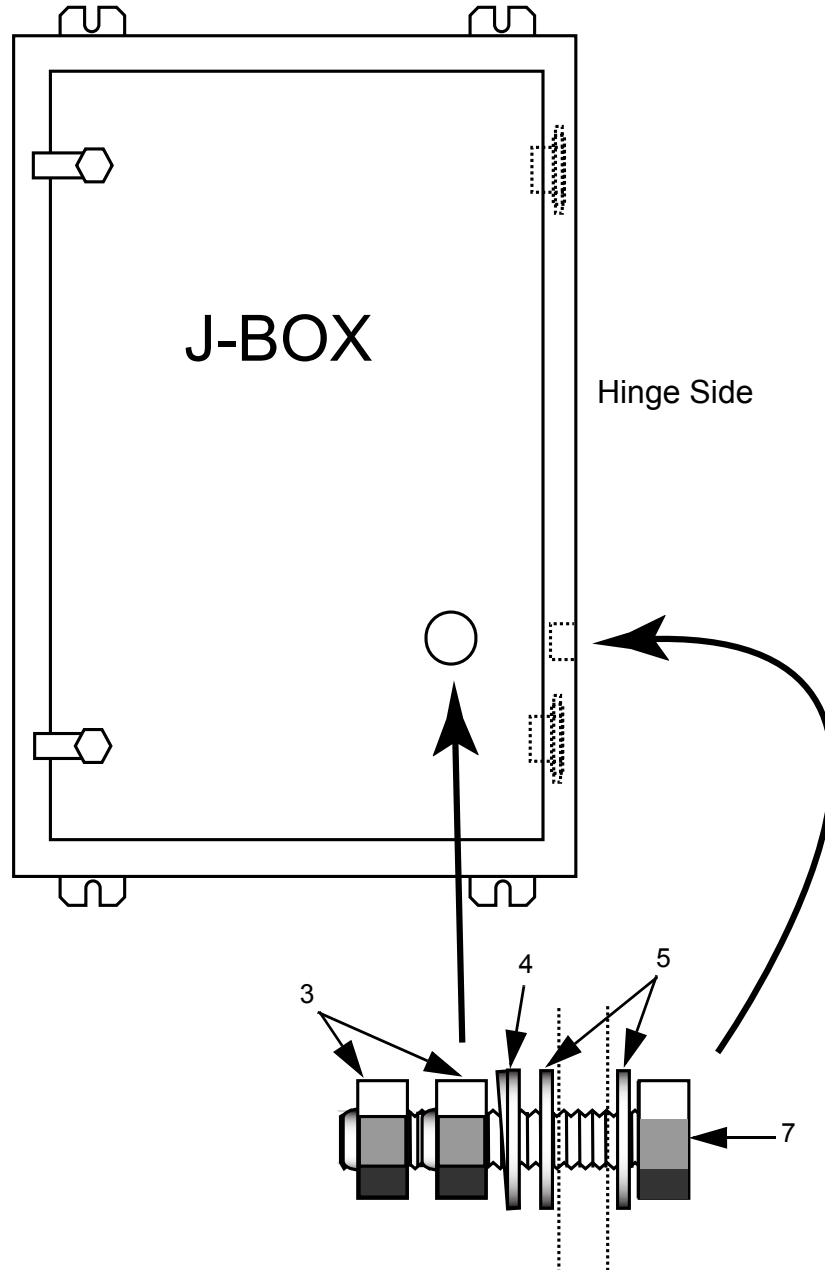


Figure 1: Grounding Stud Installation for AY21048-1

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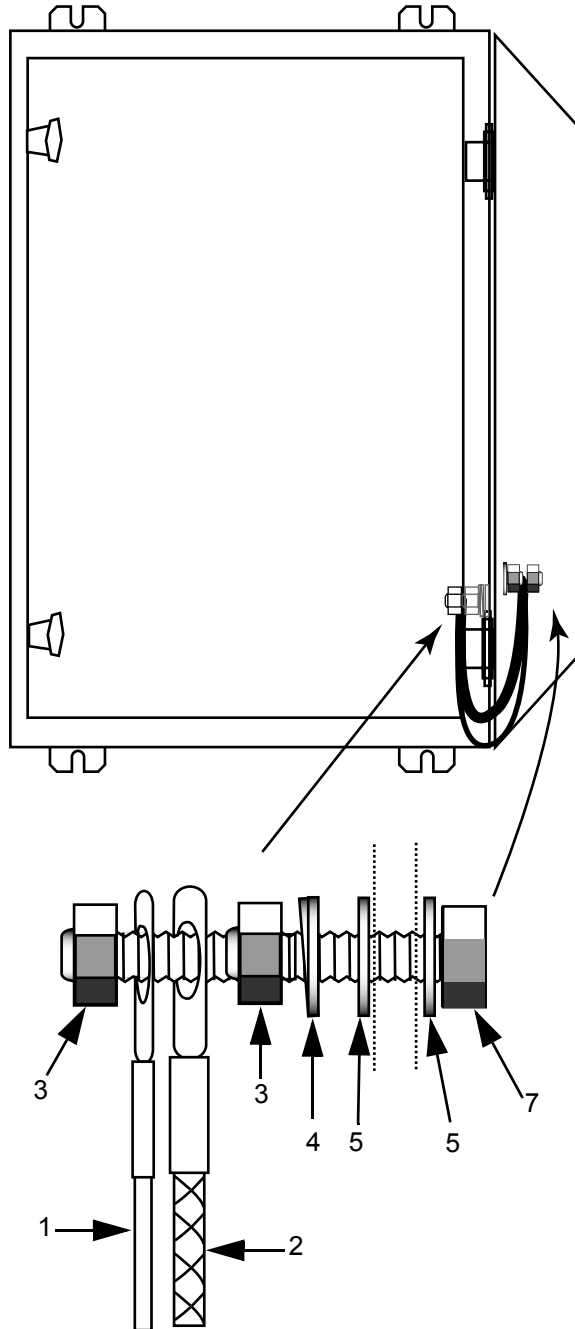


Figure 2: Cable Installation for AY21048-1